

Spain	13.48%	22.78%	14.22%	31.39%
Sri Lanka		12.60%	5.03%	20.47%
St. Kitts	15.12%	32.59%	7.21%	41.84%
St. Lucia	23.71%	41.90%	14.92%	51.80%
Suriname	23.30%	30.76%	6.09%	39.91%
Sweden	7.94%	21.26%	12.79%	29.78%
Switzerland	11.56%	24.30%	14.27%	31.47%
Taiwan	4.17%	13.70%	5.76%	21.67%
Tajikistan	34.60%	54.50%	5.06%	65.33%
Thailand	7.48%	16.98%	8.94%	25.17%
Trinidad/Tobago	17.87%	27.32%	7.38%	36.20%
Turkey	26.28%	41.35%	19.48%	51.27%
Turkmenistan	34.60%	54.50%	5.06%	65.33%
Turks/Caicos	35.11%	50.20%	23.50%	60.75%
Uganda	20.10%	30.76%	6.10%	39.91%
Ukraine	34.60%	54.50%	5.06%	54.45%
UAE	18.49%	29.29%	22.46%	38.37%
UK	48.99%	29.17%	24.75%	38.25%
Uruguay	37.15%	48.43%	17.63%	58.80%
Uzbekistan	34.60%	54.50%	5.06%	65.33%
Vatican City	0.00%	15.88%	7.59%	24.01%
Venezuela	7.76%	24.19%	7.85%	32.88%
Yemen	4.73%	18.95%	6.03%	22.28%
Zambia	26.04%	37.30%	5.99%	46.91%
Zimbabwe	31.48%	43.13%	16.29%	53.15%
AVG INCREASE	19.70%	35.45%	10.21%	44.89%

NOTES

1. Increases for Basic, MegacomPlus, and Optimum USADirect services are based on a comparison of 1992 rates with 1994 rates. Increases for CustomNet USADirect service are based on a comparison of 1993 rates with 1994 rates, reflecting that service's later introduction.
2. Per minute rates used to calculate rate increases were calculated based on a 5-minute call.
3. Because Mexico is rated by mileage band, the 431-925 band was selected for comparison purposes.
4. Where no data is provided for a country, service from that country was not available when USADirect service commenced.
5. The services compared here are the USADirect services associated with AT&T's basic long distance offering, as well as those associated with its Optimum, MegacomPlus, and CustomNet offerings. AT&T Optimum, MegacomPlus and CustomNet Services are Custom Network Services which permit outward calling from a single location or multiple locations of the customer in the Mainland and Hawaii to stations throughout the U.S., Puerto Rico and the U.S. Virgin Islands and to Canada, Mexico and overseas locations.

OPTIMUM: AT&T Optimum, a premium service designed for outbound services and including rates for switched, dedicated and card access, is positioned for single and multi-location customers billing between \$3,000 and \$30,000 per month.

MEGACOMPLUS: AT&T MegacomPlus, designed for outbound services and positioned for single and multi-location customers billing from \$7,500 to \$50,000 per month, includes rates for switched, dedicated and card access. At least one location must utilize T-1 access.

CUSTOMNET: AT&T CustomNet is designed for outbound and inbound services and includes rates for switched and card access. CustomNet is positioned for single and multi-location customers billing \$200-\$5,000 per month.

UK INTERCONNECTION



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Statement

*Issued by the Director General of
Telecommunications*

Interconnection and Accounting Separation: The Next Steps

SUMMARY

1 The UK has one of the most competitive telecommunications markets in the world. Fair, efficient and sustainable interconnection is vital to its continuing development and to achieving OFTEL's goal of getting the best possible deal for the customer. The purpose of this statement is to set out how fair interconnection is to be achieved.

2 The proposals in this statement are put forward after extensive consultations with the industry. OFTEL looks towards continuing consultation and co-operation from operators in achieving the forward programme it has set.

3 Discussions have highlighted that there are some valuable elements of fair interconnection that can be implemented immediately. Others will take longer to put in place. OFTEL is therefore proposing a three stage programme.

First stage – interim interconnection charges

4 The first stage comes into effect immediately involving the use of the recent BT/MCL determination as a basis for interim interconnection charges for interconnection with BT (paragraphs 34-43).

Second stage – programme for 1994

5 The second stage runs from March 1994, involving amendments to BT's licence, culminating in January 1995 with, *inter alia*, the implementation of a list of standard interconnection charges, a more transparent process for relating costs to charges and accounting separation of BT-Network, BT-Access and BT-Retail. The cost basis for interconnection charges would remain fully allocated historic costs (paragraph 18).

Third stage – longer term issues

6 The third stage also begins immediately but involves consideration of issues on which the substance and the timing of conclusions are uncertain. This stage includes, *inter alia*, consideration of alternative costing bases (including incremental costs), alternative charging structures for interconnection services (including capacity charging) and the future of ADCs. This work may impact on the evolution of interconnection from 1995 onwards.

Interconnection principles

7 Further work has been carried out on the principles which should underlie interconnection

arrangements. Paragraphs 23 to 33 set out these principles and identify those on which further discussion is needed.

Accounting separation

8 Paragraphs 44 to 56 explain OFTEL's detailed proposals for accounting separation between BT-Network, BT-Access and BT-Retail.

Provision of interconnection services

9 Paragraphs 58 to 61 set out three lists of interconnection services: List A contains those interconnection services which OFTEL believes BT should provide; List B those services on which further discussion is needed but decisions should be taken within Stage 2; and List C those services and issues which may need more extended debate as part of Stage 3.

10 Paragraphs 62 to 67 set out procedures for adding new services to the list and canvass views on a number of specific issues.

Procedures for calculating standard charges

11 Paragraphs 68 to 73 set out OFTEL's proposals for new procedures to ensure BT's cost allocation principles and cost drivers are effective and transparent. This will involve, in particular:

- ▷ OFTEL agreement of BT's cost allocation principles and cost drivers following consultation with the industry
- ▷ requirement on BT to allocate its costs to components in line with the agreed cost drivers and principles
- ▷ the introduction by BT of a transfer charging system to ensure BT-Retail pays the same as other operators for the same services
- ▷ new powers for OFTEL to investigate any part or all of BT's cost allocation and transfer charging systems and make subsequent changes to BT's cost allocation methodology (and therefore charges).

12 In addition, OFTEL will conduct an examination of BT's cost allocation and transfer charging systems in 1994 and consult with operators on its findings.

New no undue discrimination condition

13 Paragraphs 83 to 93 set out the details of a proposed new licence condition requiring BT, where it offers new retail prices, to publish the underlying network charge and offer it without undue discrimination to all operators. Comments on the proposed condition are invited by the end of April.

Non price terms and conditions of interconnection

14 Paragraphs 94 to 125 set out the work OFTEL has in hand on a series of non pricing issues on interconnection including ownership of numbers, number portability, directory information, equal access, emergency services, technical interfaces, quality of service targets between operators, the provision of network and market information and the protection of commercially confidential information.

Symmetry

15 Paragraphs 126 to 133 set out OFTEL's policy on when the new interconnection arrangements should apply to other operators as well as BT. The conclusion is that, in most cases, this should be when the other operator has market power. Paragraph 130 sets out how market power might be assessed.

16 In sum, this statement moves a very long way towards fair interconnection arrangements; focuses attention on the policy issues to be resolved before further progress can be made; and sets out the work programme for OFTEL, BT and the rest of the industry for the medium term.

Development of interconnection charges

	1994	1995	1996	1997	
STAGE 1	Use of BT/MCL determination as interim terms for interconnection arrangements				
STAGE 2	Work on development of list of items to be separately tariffed. new procedures on cost allocation methodology and accounting separation				
		Interconnection agreements based on standard list of charges and standard contract terms and evolving in the light of work on longer term issues.			
STAGE 3	Programme of work on longer term issues	Continuation of work on longer term issues	Continuation of work on longer term issues Consultation begins on 1997 BT price-cap review	Evolution of new regime in light of price-cap review and work on longer term issues	Start of new regime

INTRODUCTION

Purpose of the statement

1 In June 1993 OFTEL issued a consultative document *Interconnection and Accounting Separation* on how interconnection arrangements should be implemented in the increasingly multi operator market in the UK. 36 responses were received and OFTEL has held a workshop and a series of working groups with the industry.

2 The purpose of this statement is to:

- (a) set out OFTEL's conclusions on how fair interconnection is to be achieved
- (b) report on the views emerging from the consultative process
- (c) set out the work programme on interconnection OFTEL has now set itself for 1994 and beyond.

1993 consultative document

3 The consultative document stated that OFTEL's key policy objective was to ensure "the best possible deal for the end user in terms of quality, choice and

value for money". It said that this objective was to be pursued principally by promoting efficient competition. This remains OFTEL's key policy objective.

4 The UK has one of the most competitive telecommunications markets in the world at all levels, including network competition. The 1993 consultative document recognized, however, that BT's network was the most comprehensive in the UK – both for long distance services and local terminations – and would remain so for the foreseeable future. The terms and conditions on which operators can interconnect with BT are, therefore, of vital importance to the continuing development of competition in the UK. This statement therefore inevitably focuses on the regulation of BT. However, given the increasing number of network operators in the UK, following the Duopoly Review, OFTEL believes that, over time, some or all of the market for interconnection services in the UK will become fully competitive and that this will reduce the need for regulation in this market. This statement recognizes this vision of the market for interconnection services by proposing a regulatory framework which would impose less regulation on fully competitive services.

5 The consultative document set out four principles for interconnection arrangements:

5 The consultative document set out four principles for interconnection arrangements:

- › they should be transparent
- › charges should be efficient and sustainable
- › charges and other arrangements should not be unduly discriminatory
- › operators should have confidence in the arrangements.

The document proposed accounting separation of BT-Network, BT-Access and BT-Retail activities as essential to achieving these four principles given BT is both a provider of network services and a retail competitor.

6 Views were invited on four issues:

- › how the charges for interconnection services should be calculated
- › whether the principles and types of cost apportionment bases OFTEL was proposing to agree with BT and publish were the right ones
- › how detailed the information required for effective accounting separation should be
- › when other operators providing interconnection services should publish the same information as BT.

Responses to the consultative document

7 A brief summary of the responses to the consultative document is at Annex A. OFTEL is very grateful for these contributions which have been a vital part of the process of formulating the new arrangements set out in this statement. The responses:

- (a) endorsed the principles proposed for interconnection arrangements while recognising that further work was needed on their detailed implementation
- (b) in most cases, endorsed accounting separation as an integral part of ensuring no undue discrimination by BT
- (c) emphasised the vital importance of a clear trail between interconnection costs and interconnection charges, involving OFTEL and other operators.

(d) strongly supported the concept of a standard list of interconnection charges

(e) highlighted a number of non price issues which needed to be resolved to avoid unduly discriminatory interconnection arrangements eg access to numbers, directory enquiries etc.

Ongoing consultations with the industry

8 The formal three month consultation process revealed much common ground throughout the industry on the need for new interconnection arrangements and the broad approach which should be taken to them. Since September 1993, OFTEL has been considering their detailed implementation in consultation with as much of the industry as possible. A workshop was held in October 1993 and was followed by a series of working groups involving a smaller number of operators. The smaller group of operators has, in turn, consulted with others in the industry.

9 OFTEL is very grateful for the willing co-operation it has had from BT and other operators in exploring these issues to a very demanding timetable. A group comprising representatives from OFTEL, BT and a number of other operators has met on three occasions: in December, January and February, and the other operators have met with BT on further occasions. The discussions held at these meetings have played a key part in increasing understanding within the industry of the detailed issues which need to be resolved. Areas of agreement have been established and remaining areas of difference crystallised. OFTEL has concluded that there is now a basis for setting a programme for the introduction of revised interconnection arrangements.

10 Over the same period, OFTEL has been discussing with BT the definition and operation of accounting separation. BT has agreed to work with OFTEL to agree the details to be provided for accounting separation for the 1993/94 accounts and to work towards full separate accounts for 1994/95.

11 As a result of these parallel streams of work on interconnection charges and accounting separation, OFTEL now believes that it is appropriate for this statement to be made clarifying its proposals on accounting separation and setting out the new interconnection arrangements.

ACCOUNTING SEPARATION AND INTERCONNECTION: THREE STAGES

12 Detailed discussions with the industry have, unsurprisingly, highlighted that there are some elements in the proposals for new interconnection arrangements which can be implemented immediately and others which will take longer to resolve.

13 OFTEL has therefore proposed a three stage programme. The first stage – to begin immediately – would involve using the recent BT/MCL determination as an interim set of interconnection charges. The second stage would run from March 1994 and involve amendments to BT's licence culminating in January 1995, *inter alia*, with the implementation of a new list of standard interconnection charges and accounting separation of BT-Network, BT-Access and BT-Retail. The interconnection charges would, however, remain based on the historical cost accounting basis set out in BT's licence. Work on the third stage would also begin immediately and consider issues which need to be resolved as soon as possible but on which implementation may not be feasible by January 1995. This stage would include consideration of alternative costing bases for interconnection charges, including those based on incremental costs, and impact on interconnection arrangements from 1995 onwards.

14 Some of the other operators have proposed the amalgamation of the first and second stages, giving more urgency to the resolution of the stage three issues. In particular, they have argued that interconnection charges should be based on a form of incremental costs which they refer to as forward looking economic costs (FLEC).

15 OFTEL recognises that there may be deficiencies in the current arrangements, which base interconnection charges on fully allocated historic costs, whilst recognising the theoretical attractions associated with long run incremental costs. There are however important practical and policy issues which will need consideration before any arrangements based on incremental costs could be introduced (see paragraph 135 for a more detailed discussion of these).

16 The three stages are set out in more detail below:

First Stage

17 The first stage will come into operation immediately and involve an interim list of interconnection charges based on the BT/MCL determination. Paragraphs 34 to 43 provide more details.

Second Stage

18 The second stage will target the implementation of a standard list of interconnection charges based on fully allocated costs using historical cost accounting conventions and transparent cost allocation procedures to become effective by January 1995. Accounting separation will be an integral part of this process. OFTEL will be proposing appropriate amendments to BT's licence.

Work programme for second stage

19 This statement sets out the detailed work programme OFTEL is aiming to implement in 1994. Achieving the programme will require considerable input from BT and OFTEL. In summary, the programme will include:

(a) Calculation of interconnection charges

Publication as soon as possible of, and consultation on, BT's cost allocation system including the principles and cost drivers and an examination of that system by OFTEL consulting with the industry on its findings (consultation on cost drivers would, in principle, permit consideration of capacity as a cost driver). The examination will be updated to cover changes necessitated by the introduction of revised charges in January 1995. Interconnection charges would then be calculated using fully allocated historical costs, so as to ensure that by January 1995 there is a list of available interconnection services and the Director General has determined the charges for each service on the list (paragraphs 68 to 72). Consideration will also be given to indexation arrangements and a price cap on BT-Network (see paragraph 82).

(b) Amendments to BT's licence

- ▷ to implement accounting separation (paragraphs 44 to 56)

- › to establish a standard list of interconnection services, a procedure for making additions to that list and for calculating interconnection charges (paragraphs 57 to 82)
- › to implement new rules on undue discrimination (paragraphs 71 and 83 to 93)
- › require BT to draw up targets on quality of service for interconnection and monitor performance against target (paragraphs 112 to 117)
- › ensure the protection of commercially confidential information given to BT (paragraph 125)

(c) Accounting Separation

Detailed implementation of accounting separation so as to provide modified accounting information for 1993/94 and to work towards fully separated accounts for 1994/95

(d) Non pricing issues

- › transference of the administration of numbering to OFTEL (paragraph 95)
- › OFTEL decisions on number portability, access to BT's Numbering Information System (NIS) and equal access (paragraphs 96 to 98)
- › a demanding NICC programme, in consultation with the industry, to ensure interoperability of networks (paragraphs 110 to 111)
- › the publication of more information on the telecommunications market both by OFTEL and BT (paragraphs 122 to 124)

Third Stage

20 The third stage will demand the consideration of longer term issues particularly the scope for alternative cost bases for interconnection charges including incremental costs. Work has already started on these issues and will be progressed as quickly as possible. However, it is unlikely to impact on the standard charge list until after January 1995. The longer term issues are discussed in more detail in paragraphs 134 to 141 below. In particular, OFTEL will carry out a pilot study to identify the detailed cost make-up of specific components and services as part of its assessment of alternative cost bases.

21 The rest of this document describes the three stages in greater detail.

March workshop

22 In order to progress stages 2 and 3, OFTEL will continue to consult with the industry. To this end, OFTEL will be holding a further workshop on 25 March to provide an opportunity for it to explain its work programme more fully and to receive feedback on it. OFTEL will be providing a detailed timetable on 25 March of how it proposes to carry forward work on the various elements in this statement including the input needed from operators.

INTERCONNECTION PRINCIPLES

23 The 1993 consultative document was set in the context of OFTEL's overall objective - the pursuit, on behalf of customers, of quality, choice and value for money through competition. It specified four key principles for interconnection: transparency, efficient and sustainable competition, no undue discrimination and operator confidence in the interconnection process.

24 These fundamental principles remain the yardsticks by which OFTEL must judge the many proposals emerging in the course of consultation. It became clear that more work was needed to achieve the detailed implementation of the key principles on interconnection. OFTEL therefore asked the operators and BT to come forward with more specific principles and these have been the subject of some discussion. This section of the statement sets out OFTEL's views on the more detailed principles proposed by the operators, including two on which further discussion is needed.

Interconnection charges and services should not unduly discriminate between BT and other operators

25 OFTEL's proposals on this principle are set out in paragraph 52 (accounting separation), paragraphs 89 to 92 (new rules on no undue discrimination) and paragraph 94 (no undue discrimination on non pricing issues including for example access to numbers, directory enquiries and provision of service).

Interconnection charges should be cost based and unbundled and the process for deriving them should involve third parties

26 OFTEL believes that the basis on which the costs of interconnection charges are calculated should be the most appropriate for ensuring effective competition for the benefit of customers. The principle of causality and the relevance of overheads is clearly very important. Fully allocated costs (using historic cost accounting) is the approach currently used for essential interconnection services but, in the longer run, alternatives such as long run incremental costs will be considered. OFTEL has made a commitment to consider these issues as part of the proposed programme of work. It may also be that the network account will include different services charged on different bases.

27 OFTEL considers that there should be as much unbundling of costs as is reasonably practical. Costs should be allocated to components in the network. Interconnection should, however, be purchased as a service although a service may also be a single component.

28 OFTEL also believes that the process for deriving interconnection charges should be based on a consultative process involving third parties so as to ensure confidence in the regime, while respecting commercial confidentiality and implementation practicalities. This will include publication of, and consultation on, BT's cost allocation process including the cost drivers used. OFTEL's detailed proposals on the new process for calculating standard charges are set out in paragraphs 68 to 82 below.

Interconnection interfaces and standards should ensure interoperability of networks

29 A programme of work is under way within the Network Interfaces Co-ordination Committee (NICC) to ensure this. The programme is set out in more detail in paragraphs 108 to 111.

Whether interconnection should be symmetrical?

30 OFTEL takes the view that many of the proposals in this statement reflect BT's dominant share of the network market. It would not, therefore, propose to impose most of the additional regulation on the other

operators until they also have market power. OFTEL would propose to consider what market power is on a case by case basis, but does not consider it arises solely because only one operator provides the final link from the exchange to the customers premises. OFTEL'S detailed proposals on symmetry are set out in paragraphs 126 to 132.

Whether interconnection services should be allowed at any technically possible point in the network?

31 BT and the other operators differ on this principle. While the other operators have suggested that inter-connection should be allowed at any technically feasible points in the network, BT has raised concerns about this, particularly whether an automatic right of access to all new services would deter investment, innovation and service differentiation.

32 One area which has emerged as common ground between operators is acceptance of the "any to any" principle under which customers expect to be able to place a call to any other customer on the network, irrespective of who provides the called party with service, including customers accessed via premium rate or freephone services. Customers also expect to be able to contact an operator for assistance, emergency calls and directory enquiries irrespective of whether their local network provides such services. These expectations have been termed the 'any to any' principle and all operators currently provide interconnection services in accordance with it. (A customer might, of course, choose to waive his full rights under such a principle when requesting various types of incoming and outgoing call barring). OFTEL's view is that the "any to any" principle should therefore be formally accepted by all operators so that every customer can call any other customer (as defined by a unique national or international number) on the PSTN (including ISDN) and the telex network, and have access to the appropriate local operator services and premium rate and automatic freephone customers.

33 However, there are other areas where views differ on what services BT – or other operators – should provide. It is clearly important for there to be as much clarity as possible about where interconnection can take place with BT's network – and what interconnection other operators will offer –

so everyone in the market can plan ahead with confidence. Further discussion is needed on these issues which are explored more fully in paragraphs 62 to 67.

STAGE ONE: INTERIM CHARGE LIST

34 Since the June consultative document, the BT/MCL determination based on BT's 1991-92 costs has been published. This covered:

- (a) connection charges
- (b) conveyance rates for local and short and long national calls (up to 56 km and over 56 km respectively) and a new rate for the use of the Digital Local Exchange (DLE)
- (c) Access Deficit Contributions (ADCs) payable for local, national and international calls
- (d) waiver of ADCs for Mercury.

35 The determination was published in December and copies are available from OFTEL together with an explanatory document. The explanatory document sets out how OFTEL reached its decisions in the determination, including the interpretation of relevant costs and how the cost of capital and capital employed were calculated for the purposes of determining conveyance charges and ADCs. The explanatory document also sets out OFTEL's general policy on waiver decisions as this is relevant to all operators in the market.

36 The calculations of conveyance rates are based on component costs and routing factors. The latter are derived from statistical samples to measure the use made of the network by each type of call (local, long or short national). Except for the local exchange segment routing factors are specific to each operator. For a new operator, they may need to be estimated in the first instance and calculated with more accuracy at a later date when the actual traffic of the operator can be assessed.

37 Attached at Annex B is a 'Ready Reckoner', based on the costs determined for the BT/MCL determination, from which other operators will be able to estimate the costs they are likely to face in interconnecting with the BT network. The tables show the costs in pence per minute for use of the

components in the network. There are four main components: local exchanges, main exchanges, junction transmission and trunk transmission. The transmission components are further divided between costs which are sensitive to the number of transmission links and those sensitive to the lengths of the links. The routing factors shown are for Mercury's average use of components and the average for the network as a whole, used in the BT/MCL determination. The segment conveyance rates determined for Mercury can be reperformed by multiplying the routing factors by the component costs to give the conveyance cost. To this should be added the average cost of the 'other' components described at Annex B to give the total conveyance rates. Other operators may estimate the conveyance rates they are likely to face by substituting an estimate of their own routing factors for those of Mercury. The rates shown are unadjusted for the time of day gradient, but the gradients are listed on the table. The gradients will of course be amended to reflect any relevant changes in BT's retail time of day gradients.

38 OFTEL has asked BT and the other operators whether they would be prepared to accept conveyance rates based on the "Ready Reckoner" and connection charges as in the BT/MCL determination as an interim list. All parties have agreed in principle to do so subject to sorting out some detailed issues.

39 The "Ready Reckoner" rates are based on BT's 1991/2 FRBS and will be updated annually based on audited results (normally available by the end of September). An OFTEL adjusted version of the 1991/2 FRBS is at Annex C. Updated rates will apply until contemporaneous data is available, after which retrospective adjustments will be made between interconnecting operators.

40 The extent to which an operator actually pays ADCs depends on waiver determinations. However, the ADC payable for each type of call is standard and applies to all operators. The calculation of the Access Deficit for 1991/2 and the gross contributions to its funding from BT's services is at Annex D. The ADC will be recalculated annually, and retrospective adjustments made for interconnecting operators.

41 The proposal for an interim list of interconnection charges does not mean that if individual operators want to refer conveyance rates or connection charges to OFTEL, OFTEL will not undertake a determination. The operator should,

however, expect any determination to be consistent with the BT/MCL determination.

42 Given the condition preventing undue discrimination in BT's licence, OFTEL expects BT to make these charges available to all other operators purchasing similar services whatever the contractual arrangements with those other operators. Other operators will, of course, need to apply individually for ADC waivers as appropriate.

43 OFTEL recognises that there are some issues which still concern the other operators and which have not been covered by the BT/MCL determination. Examples include rates where exchange modernisation is incomplete, transit and international traffic and new services not currently offered for interconnection by BT. OFTEL will carry out a determination on these or other issues as provided for under Condition 13 of BT's licence, if requested by an operator. OFTEL would then expect any such determination to become part of the interim interconnection charges.

STAGE TWO: ACCOUNTING SEPARATION AND NEW INTERCONNECTION CONTRACTS

Accounting Separation

44 Responses to the 1993 consultative document generally welcomed accounting separation and OFTEL remains firmly of the view that it is essential. OFTEL has also noted the recommendation of the recent Public Accounts Committee Report (Committee of Public Accounts, 6th Report, 1993/94, Office of Telecommunications: Licence Compliance and Consumer Protection (HC 123)), which urged early implementation of accounting separation to facilitate competition and demonstrate the fairness of BT's interconnection charges. OFTEL thus intends to proceed with the accounting separation proposed in its consultative document between BT-Retail, BT-Network and BT-Access.

Purpose of accounting separation

42 The purpose of accounting separation is to provide information on the cost base from which interconnection charges are derived and to provide the reporting function to show that the derivation of

those charges has not resulted in undue discrimination. It will also enable BT to demonstrate its Access Deficit and that the charging of ADCs have not been unduly discriminatory. More specifically, its purposes are to:

- (a) ensure BT's accounting systems distinguish between its separated activities and thus allocate its costs in a way which reflects properly the division between those activities; and
- (b) enable BT to demonstrate in published audited financial statements that its network and ADC charges have not resulted in unduly discriminatory behaviour.

46 In order to ensure that the costs are not allocated in a way which leads to unfair cross-subsidy and hence discriminatory charging for both network services and ADCs, it is important that the accounts are produced in accordance both with recognised accounting standards and a cost allocation methodology acceptable to OFTEL and the industry as a whole.

47 It is OFTEL's intention, therefore, that the accounts should be prepared in accordance with Companies Act requirements insofar as these are applicable and that the accounts should be directly reconcilable to BT's statutory accounts. The costs should also be allocated between its activities in accordance with principles and cost drivers agreed by OFTEL after consultation with operators. BT will also be required to publish detail of its transfer charging system. BT's auditors will be required to give an audit opinion covering these three aspects of the accounts, giving a full explanation of how they have reached this opinion. A proposed audit report is at Annex E.

Details of accounts

48 In the 1993 consultative document, OFTEL asked for views on the level of detail to be published in the separate accounts. While some respondents felt that there was a need for more detailed cost breakdowns than those proposed, others felt that there was no need to disclose disaggregated costs of wholesale services, if such costs were disaggregated as part of an audit trail linking charges and costs. The relationship between costs and charges and the extent to which such a relationship should be transparent is dealt with in paragraph 71 of this document. OFTEL

has concluded that the level of detail it proposed in its consultative document was broadly right and thus now intends to require BT to produce accounts with that level of detail. The detail proposed in addition to Companies Act and accounting standards requirements is shown in the account formats at Annex F.

BT-Network

49 This financial statement will be composed of the costs, capital employed and revenue of the network, relevant overheads and all other services which BT either wholesales or is likely to wholesale to other operators. The contents of this account are likely to vary over time, as different services are required by interconnecting operators. However, they will include initially the component costs of existing network services and will be amended to cover the component costs of the list of services the other operators have at this stage identified they require, or are likely to require, in the near future. The account will also include services offered to BT-Retail only. The account will therefore include the cost of all network plant necessary for the set up and conveyance of messages, including signalling; all plant required for the provision of private circuits and point to point transport; all plant needed for the operation, management and maintenance of these activities; operator centres handling assistance, emergency and directory enquiry services; all processes and systems needed for the planning, construction, operation, provision, maintenance and management of the plant above; all relevant overheads and all services which operators have identified they require or are likely to require.

BT-Access

50 This account will include the costs, capital employed and revenue of BT's provision of connection, rental and other access services to the business and residential PSTN market. It will include all the services covered by rental charges, for example, the provision of telephone directories. It will also show the ADCs received from BT-Retail and other operators, as well as that part of the access deficit not recovered.

BT-Retail

51 The BT-Retail regulated activities will be broken down into the categories listed in Annex G which largely follow the breakdown currently existing for BT's Financial Results by Service ('FRBS')(see Annex C). The accounts will include the operating costs and capital employed specific to BT's retail activities as well as the transfer charges paid by its retail activities for its access and network services. At this stage OFTEL has only seen the need to add one retail service to those listed in BT's existing FRBS, that is mobile services. The reason for this is that the provision of fixed to mobile calls can be seen as distinct from the provision of calls from fixed link to fixed link telephones. The distinction arises in the difference in the costs involved, as the costs of providing conveyance to a mobile telephone are higher than those to a fixed link telephone. It is clear that the relationship between revenues and costs is also different for calls to mobile and separate disclosure is required to enable BT to demonstrate that there is no unfair cross-subsidy between this and other call services.

52 BT's non-regulated retail activities will be a separate category within the retail financial statements. The category will consist of the costs, capital employed and revenue relating to all BT's non-regulated activities in order to demonstrate that BT has not unduly discriminated in the allocation of its cost between its regulated and its non-regulated activities and to provide a reconciliation between these separate accounts and its group statutory accounts.

Format of financial statements

53 Formats of the accounts are attached at Annex F, the format to be supplemented by the normal detail required under the Companies Act and accounting standards for statutory accounts insofar as these are relevant. Each set of financial statements should provide for each of the disaggregated activities a profit and loss account, a capital employed statement and detailed notes to those statements. The capital employed statements will identify capital employed as defined by OFTEL and the accounts will show BT's return on capital employed. As the annex shows there will be more detail required in the network account than the retail accounts, in order to demonstrate that BT has allocated its cost between

services in a not unduly discriminatory way. Thus there will be a note to the profit and loss account showing the average cost of providing each of its network services during a particular year, distinguishing between directly attributed and apportioned costs (see Annex F). Relevant time of day gradients are also disclosed to enable the average cost per minute by time of day to be calculated. The retail accounts will disclose BT's usage of conveyance services to demonstrate that BT-Retail has paid the same charge as other operators for these services. There will also be a separate note showing the calculation of the cost of capital of each of these services.

54 The consultative document proposed separate disclosure of the charges for providing services to BT-Retail and those of providing them to other operators. As OFTEL is now proposing standard charges, these costs will only vary if the service provided is different. Thus OFTEL shall now instead require BT to unbundle its services so that any difference can be clearly identified.

55 The charges raised in any particular year for interconnection will be based on the cost information for the most recently available set of accounts. As more up to date information becomes available, retrospective adjustments will be made. It is thus likely that a provision will be needed in the accounts to allow for any possible adjustment in costs.

Timing

56 OFTEL is in discussion with BT with the intention of producing separate accounts for the 1993/94 financial year. BT's cost allocation system has not previously been set up to produce separate accounts and thus the 1993/4 accounts will not meet OFTEL's full requirements. OFTEL is in discussion with BT on the details that will be provided for the 1993/94 financial year and BT has agreed to work towards achieving full separate accounts for the 1994/95 financial year.

Standard List of Interconnection Services

57 The concept of a standard list of interconnection services has had strong support. Much of the discussion in the working groups has focused on:

- (a) what interconnection services are technically feasible; and
- (b) how the charges for those services should be established

Provision of Interconnection Services

58 Considerable debate has taken place on what the list of interconnection services offered by BT should be. The relevant condition in BT's licence (Condition 13) requires BT to enter into an agreement with anyone authorised to run a Relevant Connectable System to establish and maintain such points of connection so as "to meet all reasonable demands for the conveyance of messages" between BT's system and those of the other operators. There are similar conditions in the licences of other operators. The licence leaves it to the Director General to determine what constitutes "reasonable demand" if it cannot be commercially agreed by the parties. In practice this has been done through the determination process.

59 This statement applies only to operators which run Relevant Connectable Systems – in practice, currently the majority of operators with individual licences.

List of services to be provided

60 The other operators consider that interconnection charges should be unbundled into components which could be purchased individually. OFTEL agrees that costs must be allocated to components but that interconnection should be purchased as a service, however small and possibly only involving one component. OFTEL has therefore concentrated on seeking agreement between BT and other operators on developing a list of services which meets most of the aspirations of operators in terms of what they want to purchase and which it is practical for BT to provide. The list is at Annex H. It falls into three parts.

- (a) List A contains those interconnection services that OFTEL believe should be provided by BT from January 1995 though not all the charging arrangements are yet determined. Some further unbundling of switching components to remove the costs of unwanted supplementary features may also be required

(b) List B contains those services which OFTEL believes need to be considered during 1994 so that they can be provided, if agreed or determined, from January 1995

(c) List C contains those services or issues which OFTEL believes may need more extensive debate on a longer time scale

61 OFTEL would proceed to deal with the issues arising from Lists B and C as quickly as possible so that the range of interconnection services offered by BT fully reflects market developments.

Addition of new services to list

62 It will be important that the list reflects market developments. It is therefore proposed that new services should be added to the list either by agreement with BT or, if agreement cannot be reached, through new procedures involving an OFTEL determination. What services are added to the list will be a matter of concern for the industry in general. OFTEL would propose to reach any decisions referred to it in consultation with the industry as a whole. OFTEL will consider any proposals for new services referred to it as they are referred and certainly not less than once a year. OFTEL will be willing to consider the case for the addition of new services at an early stage in any discussions with BT.

63 The procedures for adding new services to the list raise the question of whether there are any principles or rules which can be applied to requests for new services or whether such requests need to be judged on a case by case basis as they are at present. A number of issues are relevant:

- (a) other operators' concerns to allow their services to be accessible by BT's customers
- (b) BT's concern that automatic right of access to their new services could deter innovation, service differentiation and investment in the market. Both charging and availability issues may be relevant
- (c) other operators' wishes to see new services such as intelligent networks and broadband provided in a standard way that will facilitate interconnection
- (d) the extent to which other operators in the market should offer similar interconnection services to BT

(e) customers' expectations that they should be able to divide their networking requirements between more than one operator without being disadvantaged by inadequate interconnection

64 OFTEL proposes to hold urgent discussions with BT and other operators on the issues in paragraph 63 above and on whether general principles can be drawn up to establish the services offered for interconnection. OFTEL will be guided by its overriding objective of more choice for the customer. It will, in particular, welcome discussion on the following issues:

- (a) **alternative service access** If a customer is taking service from one operator, should he be able to access all relevant services provided by other licensed operators in his area? This issue has arisen in relation to access from BT's payphones. It is also relevant to other services. OFTEL will want to look at the detailed arguments on this issue but considers that, in principle, such access should be made available by any dominant operator. OFTEL will want to explore the extent to which other operators should also make such access available
- (b) **service to service interconnect** Whether interconnection should be available between the comparable services run by different operators which are technically capable of being interconnected eg VPN/Centrex services. BT has argued that the provision of service to service interconnect could limit the scope for innovation and product differentiation in favour of a more co-ordinated development of services amongst interconnected operators. The Director General's view is that he would generally expect to add such services to the list where the benefits that customers would gain outweigh any disbenefits arising from greater service uniformity
- (c) **interconnection to BT's access network** Several of the other operators have expressed a desire to gain direct interconnection to BT's access network. The UK regulatory regime has always encouraged the development of alternative infrastructure to BT, particularly in the access network where a significant proportion of BT's costs lie. Since the Duopoly Review, the DTI and OFTEL have created an environment encouraging the development of

alternative access arrangements to BT and feel that allowing unfettered access to BT's copper loop might tend to reposition BT's access network as a common utility and undermine the significant investment in other networks, especially the cable companies who by virtue of their broadband build requirements could not themselves exploit such forms of access network interconnect. OFTEL would wish to discuss this issue further with industry and it is included in List C.

OFTEL believes however that BT's scope to exploit the copper local loop to carry multiple services at marginal cost whilst clearly offering potential benefit to 'customers' could nevertheless create a barrier to the provision of alternative sources of supply for services such as domestic alarms or meter reading. OFTEL would wish to discuss this issue further with the operators and debate the proposition that, if for such specific services the copper loop will for the foreseeable future remain effectively a utility, some form of interconnect to such services (rather than the loop itself) should be provided. The views of the other operators providing local access will be a particularly important input to this debate, not the least in considering whether any principles should apply to them as well as to BT.

Charging for fixed point to point transport

65 The creation of a competitive market may also be assisted by allowing operators to buy certain forms of services from each other as a way to expand their own networks more rapidly, prior to their own self-provision, or in areas where self-provision could never be justified. A particular case is that of the provision of non-switched transmission paths or point to point transport. Private circuits are a special form of point to point transport and can already be provided under Condition 46 of BT's licence, essentially at retail tariff. A number of operators have expressed concern that the absence of an active wholesale market is hindering competitive developments. BT, on the other hand, argues that if the pricing regime were now to be changed, it would render nugatory some competing investments which have already been made and would give rise to demands for similar treatment from BT's large customers, some of which use more of its network than the smaller of the other operators.

66 OFTEL believes that point to point transport within the main network should be offered as an interconnecting service and it has been included in List A. OFTEL wishes, however, to debate the appropriate pricing regime further with the industry, taking account of Condition 13 and any other alternatives.

Where interconnection should take place

67 OFTEL expects all new interconnections to be provided on an "in span connection" basis where technically and operationally possible. OFTEL would expect operators having the use of existing interconnect facilities in another operator's building to continue to use these but not further expand the physical accommodation. OFTEL recognises that some forms of "in span connection" may require "virtual co-location" in the short term, but that this should not demand the provision of discrete accommodation. OFTEL would propose to discuss with the industry US experience of "virtual co-location" in case this has any lessons for the UK and whether, in the light of decisions on access to the copper loop, there is any role for physical co-location.

Procedures for Calculating Standard Charges

68 One of the significant results of the wide consultations has been a better understanding of the accounting systems used by BT to allocate costs to its different services. This has confirmed OFTEL's view that BT's existing cost allocation system provides a suitable starting point for calculating charges as long as: costs are collected by network components gathered into a network account and interconnection charges are based only on relevant costs and applied without undue discrimination to BT-Retail and other operators. These procedures need to be made more transparent to OFTEL and other operators.

69 OFTEL believes that a significant level of other operator involvement is necessary if there is to be confidence in the procedures. The current arrangement, with OFTEL alone seeing the detailed cost figures lying behind BT's proposed interconnection charges, is not sufficient. Some of the other operators have argued that BT's detailed cost figures should be published, or that other operators should have power to put in their own auditors.

Some have suggested that BT should publish the percentage of costs allocated to each of BT's cost categories.

70 While OFTEL fully recognises the concern of the other operators to have more confidence in the calculation of charges, it also recognizes BT's concerns about commercial confidentiality. OFTEL therefore proposes to put into place – where appropriate, through licence amendments – the procedures described in the following paragraphs.

Cost allocation methodology and transfer charging

71 OFTEL will require BT to publish its cost allocation principles and cost drivers and details of its transfer charging system as soon as possible. It will invite comments from third parties and will then agree the principles and cost drivers which BT should follow for the allocation of costs, capital employed and revenue to all its activities, including to network components and hence to interconnection services, and the production of separate accounts. This exercise could, in principle, include consideration of capacity as a cost driver; OFTEL will also agree the transfer charging system. The methodology should conform to the following principles:

- › costs and capital employed should be allocated to components and services in accordance with the activities which cause costs to be incurred (this is often known as "activity based costing"). The allocation should be objective and not intended to benefit either BT or other operators
- › sampling techniques may be used to derive the apportionment bases, as long as these are based on appropriate statistical techniques which result in an immaterial margin of error
- › there should be consistency of treatment from year to year. Where there are changes to the methodology, BT should restate the parts of the previous two years financial statements affected by the changes; and
- › the allocation process should have due regard to the concept of materiality. This means that a distinct allocation basis may not be appropriate for a particular cost if the use of a distinct basis would not materially affect the allocation.

Materiality should also mean that bases of allocation are not changed unless the effect of the change is likely to be material to the allocation of costs. A material change is in OFTEL's view one that would affect the charge for interconnection service by at least 1%

- › the transfer charging system should ensure that BT-Retail pays the same charge for the same service as other operators and that the total payments made by BT-Retail to BT-Network and to BT-Access are properly disclosed in BT's separate accounts.

72 Once agreed, the methodology can only be altered by agreement with the Director General, following consultation with other operators. If the methodology is changed, BT will have to be able to show how costs would have been allocated under the old as well as the new methodology.

73 For the preparation of separate accounts, revenue allocation should conform to the cost allocation principles where relevant.

Investigation by OFTEL

74 OFTEL will seek the power to investigate any part or all of BT's cost allocation and transfer charging systems and their impact on BT's financial results and to publish its findings for consultation. The extent of such an investigation will be at the Director General's discretion and can be initiated either by him or following a complaint. As a result of such an investigation, the Director General may require BT to change the allocation of costs and the methodology.

Systems examination in 1994

75 In addition, OFTEL will conduct an examination of the cost allocation and transfer charging systems underlying the production of separate accounts for 1994/5 in 1994, and will consult on its findings with other operators.

76 The objectives of the examination will be to reach a conclusion that the systems enable a proper allocation of costs and capital employed to BT's different cost components and accounts and a proper allocation of revenues (including transfer charges) to the accounts such that its interconnection charges and access deficit contributions are not unduly

discriminatory and that it can demonstrate in its accounts whether it has unfairly cross-subsidised any of its separate activities or shown any undue discrimination in the provision of any of its services. The examination will focus on the material (both in terms of value and sensitivity) cost drivers and transfer charging controls in order to form a view of the systems as a whole.

77 Other operators will be consulted on the results of the examination, which will be published. The examination will be updated to take account of the introduction of any changes in cost drivers necessitated by revised interconnection services.

78 After the results of the 1994 examination have been published, OFTEL will also consider whether additional information needs to be published on a regular basis on the detailed cost allocations being made under BT's system and, if so, what.

79 In OFTEL's view:

- ▷ agreement by OFTEL, after consultation with third parties, of BT's cost allocation principles and cost drivers and its transfer charging system
- ▷ OFTEL powers to carry out and publish the findings of independent investigations
- ▷ the opportunity for other operators to comment on the findings of the investigations
- ▷ OFTEL powers to require BT to make changes to their cost allocation methodology (and therefore their charges) in the light of investigations

strike an appropriate balance between the provision of information to other operators and BT's concerns about commercial confidentiality.

Competitive network services

80 BT has argued that the only part of the network requiring special regulation is the bottleneck between the customer and the local exchange which is usually served by only one operator. It argues that Mercury provides an alternative long distance network: other operators are entering this market – albeit in some cases on a regional basis (eg Energis, Colt, the cable companies) – and that this market is therefore competitive. OFTEL recognises that competition in network services is developing. Mercury's network

does not cover the whole country, however, and BT is currently the dominant provider of network services. OFTEL therefore considers that, at the moment, the procedures proposed for providing information on the relationship between network costs and interconnection charges should apply to all interconnection services BT provides to other operators. However, it can envisage a time at which some network services would be competitive and should therefore attract less regulation. OFTEL has considered whether it is possible to lay down in advance principles which, if met, would mean a particular network service was competitive. It has concluded that this is not feasible but would propose to recognize the potential for competitive network markets by introducing licence amendments:

- (a) giving the Director General power to designate certain interconnection services within the BT-Network account as competitive. The definition of markets would be left to the Director General
- (b) requiring BT to publish interconnection charges for competitive services and to offer any such charges on a not unduly discriminatory basis to itself and other operators. The BT-Retail account would still need to show the appropriate transfer charges to the BT-Network account.

The provisions at (b) above are necessary because BT's involvement in both the network and retail markets could lead to undue discrimination against other operators and therefore a distortion of competition.

81 In general, the normal powers for investigation of anti competitive activities under BT's licence and the Fair Trading and Competition Acts would, of course, still apply to all services.

Indexation and BT-Network price cap

82 A number of operators have commented adversely on the need – under the current interconnection arrangements – to adjust charges retrospectively. They argue that such adjustments can cause competition problems because they have less information than BT about what the adjusted costs are likely to be and this constrains their pricing in a fiercely competitive market. OFTEL recognises this problem and would therefore propose to explore

the scope for indexation or a price cap on BT-Network in Stage Two of its programme. This work will need to take account of any tensions that might arise, as a result, with the price cap on BT's retail services, particularly as the Director General's view is that, on the information currently available to him, he would not intend to reopen the retail price cap agreed for August 1993 to July 1997.

NEW NO UNDUE DISCRIMINATION CONDITION

83 The June 1993 consultative document (paragraph 34) indicated that OFTEL would be proposing a licence modification requiring BT, where it offers new retail prices, to publish the network charge underlying the retail price and offer it without undue discrimination to all operators. OFTEL has been discussing the details of this licence amendment with BT and would now welcome comments on it.

84 OFTEL'S overriding aim is to ensure the best possible deal for customers in terms of quality, choice and value for money. OFTEL wishes BT's retail customers to reap the benefits of low prices – whether permanent price reductions or special offers – provided that this does not result in competitors, or other customers, having to pay unfairly high prices by comparison.

85 The relevant rule in BT's licence is Condition 17 which, in broad terms, prohibits BT from:

- (a) showing undue preference to, or exercising undue discrimination against, particular persons or classes of persons; and
- (b) unfairly favouring its own business to a material extent so as to place competitors at a significant competitive disadvantage.

86 In August 1993 the Director General made a determination that BT had contravened Condition 17 with its 'Sunday Special' offer which was found not to cover the costs attributable to the running of its network when those costs were assessed on the same basis as that used for setting charges for network usage by interconnecting operators. BT's failure to make corresponding reductions in its charges to interconnecting operators contravened Condition 17 and placed interconnecting operators at a significant competitive disadvantage. They were unable to make

competing discounted offers to their own customers because they continued to have to pay standard charges to BT for the use of its network and because those charges constitute a large proportion of competitors' total costs.

87 Condition 17 asks the Director General to determine what constitutes 'undue' preference or 'undue' discrimination by BT, after taking into account all factors which may be relevant in a particular case. A rule of this type has considerable advantages over one which attempts to set out precisely what types of activity are, or are not, permissible. The more specific the rule, the greater the risk that it will prove to be inadequate because certain activities or effects were not envisaged at the time the terms of the rule were set. It also has disadvantages – mainly those of uncertainty to both BT and other operators; in particular, BT is not obliged to demonstrate in advance that it is complying with the terms of Condition 17 and the regulator has no power to impose penalties for failure to comply nor to make an order for compensation to disadvantaged other operators. In order that BT and other operators should have more clarity about what could be regarded as undue discrimination, OFTEL is proposing to put a new condition in BT's licence.

Details of proposed licence amendments

88 BT's call prices to customers may be considered to cover a number of different elements. They cover conveyance costs, (which should be assessed on the same basis as the interconnection charges that interconnecting operators must pay for the use of the BT network); retail costs, which might be divided into a fixed element which does not vary with the volume of activity in any BT service and a variable element which is related to the volume of activity on a particular service and ADCs. In addition, because conveyance costs are calculated using BT's cost of capital (reasonable rate of return) and BT's retail prices are set under a price cap, it is possible that, in total, the income from calls provides a higher rate of return to BT than the current cost of capital, even after ADC payments have been taken into account. (This surplus is referred to in this statement as 'supernormal profit').

89 The proposed condition specifies that, in the absence of changes to interconnection charges, BT's tariffs must cover all of the elements set out in paragraph 88 except the 'supernormal profit' and its

fixed retail costs. If any BT tariff fails to cover the level of ADC payable by other operators, BT must also reduce the ADC payable by that operator. In addition, if any BT reduction in a price results in that price not covering the fully allocated costs of conveyance, BT must adjust appropriately its interconnection charges to other operators. Full particulars of the proposed condition are set out in Annex I. In summary, the new condition would require BT to:

- (a) give OFTEL advance notice of any proposed new call charge tariffs for services covered by the main price control condition in its licence (Condition 24A);
- (b) provide OFTEL with an analysis of the underlying costs making up the new prices, identifying conveyance costs and ADCs separately; and
- (c) include proposals for making its network available to interconnecting operators providing competing services with the same conveyance and ADC costs as at (b) above as soon as the new terms became effective. ADC adjustments would only be necessary in cases where operators were paying ADCs.

90 The new licence condition would give the Director General the power to prevent the introduction of the proposed new price if he was not satisfied that the conditions of the new provision had been met.

91 The proposed new condition would be in addition to, and without prejudice to, the proposals in paragraphs 68 to 82 above on the method for calculating interconnection charges.

92 OFTEL would welcome comments on its proposals before moving to the 28 day statutory consultation process for new licence amendments. **Any comments should be with OFTEL by the end of April.** OFTEL recognises that this is less than the three months it normally aims to provide for such consultations. This takes account of the fact the proposed licence amendment was foreshadowed in the 1993 consultative document.

93 In making comments, those concerned may like to take account of the following points:

- (a) a possible, though not universally agreed, definition of a predatory price is one which is below incremental cost. This is because any

price above incremental cost is sustainable in the long term, since services provided above incremental cost make a positive contribution to a firm's profits. In the absence of the type of constraint proposed here, BT would not be constrained from setting combinations of retail prices and interconnection charges that were, by this definition, predatory. The rule proposed and outlined in this document would prevent this. However, the rule does no more than this, and BT would be allowed considerable commercial freedom to target selectively customers of emerging competitors, in a way that could stifle the development of competitors in the telecommunications industry. If this possibility were to be considered a matter of concern, a possible solution would be to impose price bands or floors, which would limit the amount by which BT was able to reduce individual tariffs on a selective basis. It might be appropriate for such rules to be time-limited, with the long term objective of relying only on rules on no undue discrimination to control anti-competitive behaviour. Against this, consideration needs to be given to the benefits to customers from competitive pricing initiatives from BT

- (b) concern has been expressed as to whether retail costs can be accurately or appropriately divided into fixed and variable categories. OFTEL would welcome comments on this point. If concern is expressed, how do respondents feel retail costs should be treated for these purposes?
- (c) if BT is unable to reduce its costs sufficiently quickly, it is possible that the reduction of prices following the RPI-7.5 price control would result in retail tariffs set at levels which failed to cover all of the elements identified above. In these circumstances, it could be argued that BT should not have to reduce interconnection charges to competitors, since its failure to earn an adequate return on its retail activities, resulted from having to comply with the price control. However, it is OFTEL's view that the principle of no undue discrimination should apply regardless of the reason for BT's tariff reductions. This implies that, in these circumstances, it would be appropriate for interconnection charges to be reduced to the level that was consistent with

BT earning a reasonable return at the retail level after imputing these charges as costs to its retail activities.

NON-PRICE TERMS AND CONDITIONS OF INTERCONNECTION

94 Responses to the 1993 consultative document also revealed concern about a number of non-pricing issues, the resolution of which other operators considered essential to establishing fair and not unduly discriminatory interconnection. Work is already in hand on all of these issues and the following paragraphs explain the current position.

Numbering: ownership of numbers

95 A number of operators have expressed concern about the ownership and control of numbering. OFTEL recognises how crucial the fair allocation of numbers is to the development of competition. OFTEL will therefore take over the administration of numbering. A consultative document, *Numbering Conventions and Specified Numbering Scheme* will be issued shortly. It will contain draft conventions setting out the rules for the allocation and use of numbers and examples of the numbering scheme. Implementation of the new arrangements depend on responses to this consultative document. OFTEL plans to take over responsibility for numbering by June 1994.

Number portability

96 OFTEL recognises that the current inability to retain the same telephone number at a fixed address is a considerable disincentive to customers who wish to change operators and is a major barrier to entry.

97 BT's licence requires the Director General to carry out a cost benefit analysis before he can direct BT to provide number portability. This was completed in December 1993. It demonstrated that there is a robust case in favour of introducing portability. During consultation on the cost benefit analysis, other operators confirmed that they were in principle prepared to provide reciprocal portability with BT (as is required under BT's licence before BT can be directed to provide portability).

98 In January, the Director General announced three main proposals designed to encourage the early introduction of portability. In summary, the proposals are:

- › to direct BT to introduce portability for those Public Telecommunication Operators (PTOs) which will reciprocate and which provide the Director General with the necessary information on when and where reciprocal portability will be provided. Discussions with some PTOs are now underway. Other PTOs are welcome to apply for directions as soon as they can provide the necessary assurances and information;
- › to direct the NICC to oversee further technical work and co-operation between operators. The NICC is to present a timetable of its work by April with the objective of producing technical solutions by the end of the year. It will also be working on longer term solutions to portability; and
- › to simplify the formal procedures set out in operators' licences for the introduction of portability. OFTEL is examining the scope for replacing these detailed procedures with more general criteria which would require an operator to provide portability when requested by another operator which is prepared to reciprocate. This would remove the need for operators to ask for directions specifying particular areas and dates, and as a result would help to make the process simpler and quicker.

Directory information

99 OFTEL held a workshop in early February to discuss possible solutions to the concerns raised by operators, consumers and other interested parties, about the terms under which competitors are able to have access to BT's directory information systems. The discussion highlighted a need both for long-term measures and shorter-term solutions to solve some of the more immediate difficulties.

100 OFTEL believes that a code of practice, proposed by BT, offers the best short-term solution. It will not solve all problems, but it will provide greater assurance of equal treatment, set out clear arrangements and standards of service, and give

operators a measure of choice in the way in which they provide directory enquiry services to their customers. OFTEL will ensure that other operators are closely involved in finalising the code, which should be in operation by the summer, and in ensuring that it operates effectively.

101 OFTEL also realises the importance to other operators of transparent, cost based, not unduly discriminatory charges. As a first stage, OFTEL is examining the charges levied by BT for inputting and maintaining information on the NIS database, for accessing the directory assistance database, and for providing printed directories. In the longer term, scrutiny of individual charges will be reinforced by the introduction of separate and transparent accounting arrangements.

102 New arrangements for the production of printed directories aim to give other operators much more flexibility and remove many of the difficulties associated with existing arrangements. OFTEL proposes two new options: first, an unbranded core directory will be made available to all operators. They will be able to add whatever further information and branding they wish. Second, other operators who do not wish to use the core directory will have access to directory information on fair and reasonable terms (which will include charging arrangements) to enable them to produce their own directories.

103 OFTEL will consider the need for licence modifications to ensure that arrangements are properly implemented and enforceable.

104 In implementing all these proposals, OFTEL will take full account of the requirements and concerns of customers. Any obligations on operators to provide access to directory information or to make information available for particular purposes must meet customers' expectations about the way in which their information will be used and the safeguards which will apply.

Equal access

105 Equal access provides customers with choice as to which long distance operator they want to use either for all calls or on a call by call basis.

106 Under the terms of BT's licence, the Director General may only give a direction for BT to provide

equal access if a cost benefit analysis is undertaken the results of which show that the benefits outweigh the costs. A consultative document on the cost benefit methodology was circulated to operators and interested parties in November 1993. OFTEL is now analysing the responses to it and will report on the results of the consultation and the next steps by the end of April.

Emergency services

107 The conclusion, in August 1993, of the review of emergency call handling by PTOs extended the arrangements by which BT and Mercury offer emergency call services to other operators on an agency basis. OFTEL is committed to ensuring that these services are offered on equitable terms and will take whatever action is necessary to ensure that this is the case.

Technical interfaces

108 So that interconnection between operators is not hindered by technical issues, it is necessary for operators to have access to information about the network interfaces which may be used for interconnection. The Director General has given the NICC the task of advising on the designation of interfaces (including customer interfaces which are a point of interconnection for many operators who provide retail services). Essential interfaces are those which, in the Director General's opinion, are essential for interoperability between systems. Optional interfaces are those which would be classed as essential if a particular optional service were implemented.

109 The NICC is formulating its 1994 work programme to deliver a list of proposed designations for the main interconnect interfaces. This will ensure that interconnection between operators is adequately defined by open specifications.

110 The programme for interconnect interfaces includes:

- C7 signalling interfaces for:
 - PSTN call
 - ISDN call
 - Operator access
 - Transfer of Calling Line Identity, including Presentation Restriction;

- › interface arrangements for the interim handling of number portability. Longer term work on an arrangement exploiting 'intelligent network' capabilities will also begin;
- › interface requirements for interconnection using the Synchronous Digital Hierarchy form of transmission;
- › study of network requirements for indirectly connected operators to ensure that their ability to offer competing services is not unduly constrained;
- › other interfaces arising from policy decisions on new types of interconnect;
- › quality of service issues flowing from the no undue discrimination requirements of the new interconnect regime; and
- › other quality of service aspects of networks comprising multiple public and private networks, eg transmission quality, resilience.

111 The programme will be finalised in April 1994 and it is anticipated that industry wide consultation will take place during May and June 1994.

No undue discrimination on quality of service

112 The other operators have stressed how important no undue discrimination on quality of service – as well as charging – is to them. OFTEL recognises this concern.

113 OFTEL considers that the priority is to ensure that BT, as the dominant operator, has quality of service targets in place and that performance is measured against target. Quality of service targets should be offered by BT to both other operators and, where appropriate, to BT-Retail as another safeguard against undue discrimination. Such targets might include, for example, speed of provision, repair times, negotiating timescales for new interconnection facilities and technical quality.

114 OFTEL will therefore be proposing licence amendments to BT's licence requiring BT to:

- (a) develop quality of service targets in discussion with other operators;
- (b) agree the targets with the Director General; and

- (c) publish the targets and performance against targets on a six monthly basis.

115 Consideration will also need to be given to what remedial measures should be taken if performance falls seriously behind target.

116 OFTEL therefore proposes to invite BT and the other operators to develop a list of appropriate measures and propose arrangements for publication and for discussing performance against target. OFTEL will introduce licence amendments, as appropriate, to implement its proposals.

117 The BT/other operators group will also need to consider the extent to which other operators should publish their targets.

Information

118 Other operators have expressed concern about how little information is available in the current telecommunications market, arguing that this operates as a barrier to entry. Steps are being taken to improve the situation.

Network information

119 The 1993 consultative document indicated that BT would be publishing information about its network. There will be three tiers of information:

- › a description of BT's network;
- › more detailed information for those who hold or have applied for licences; and
- › precise information for those undertaking negotiations with BT on interconnection.

BT will also give other operators reasonable advance notice of its network planning programme.

120 BT will be announcing the details of what it proposes to provide in March 1994. The general description of its network will be available in April 1994.

121 Other operators are expected to provide similar network information to BT but until any of them are considered dominant in their market will not be expected to provide advance notice of their network planning programme.

licences. It is also considering how to collect information on market shares. Where possible, information will be broken down by market segment.

123 OFTEL proposes to approach this exercise in stages. The first of these will be a request from the Director General, in March 1994, to operators to provide certain data on fixed and cellular markets including that required for ADC waiver decisions. He will publish this information in the summer of 1994 subject to considerations of commercial confidentiality.

124 Information will also be collected on a quarterly basis for international and national calls to reflect the decision in the BT/MCL determination that these markets should be considered separately. This information will be published annually starting in 1994. Information on individual cable companies and international simple resale markets will be included.

Protection of commercially confidential information

125 It is clearly not appropriate that information provided to BT by other operators for interconnection purposes or information on interconnection traffic should be used within BT for any other purpose than interconnection. OFTEL has concluded that safeguards should be put in place requiring the company to enter into agreements with other operators preventing information provided for interconnection purposes being used for any other purpose. OFTEL would propose to enshrine this requirement in BT's licence.

SYMMETRY

126 The consultative document raised the question as to when other operators should be required to provide information similar to BT for accounting separation and cost transparency purposes. The document suggested that the provision of additional information should be related to market power and invited views on the appropriateness of a 25% market share test.

127 Annex A summarizes the responses to this question. Some companies considered that 'the bottleneck' in the network market was access to the individual customer and that this therefore needed to

be regulated regardless of the operator's overall market share. The majority of respondents considered, however, that regulation will only be needed where the operator had a significant market share either of long distance transmission or of local terminations. Unsurprisingly, however, widely differing views were put forward on how market power should be measured. A market share figure alone was generally felt to be insufficient – and the figures proposed ranged from 5% to 45%. There was also general concern that any market share test should recognise the complexities of markets both geographically and in terms of service provided.

128 The discussions with BT and the other operators have shown that symmetry is an issue in relation to a number of the items raised in this document, particularly accounting separation, the procedures for arriving at standard interconnection charges, what interconnection services should be offered and what network information provided.

Accounting Separation and Transparent Procedures for Interconnection Charges

129 OFTEL takes the view that there are some items under the proposed interconnection arrangements where what is proposed is the result of BT's dominant market position. Where this is the case, OFTEL would only envisage applying similar requirements to other operators when they had market power. *Inter alia*, the proposals on accounting separation and transparent procedures for arriving at standard interconnection charges fall into this category. Accounting separation and cost transparency are designed as safeguards against undue discrimination and such discrimination is unlikely to be undue unless an operator has market power.

130 The question then arises as to when OFTEL would consider an operator had market power. OFTEL has concluded that this can only be done on a case by case basis, taking account of the extent of competition in the relevant market. It would propose to weigh a number of factors including the extent of customer choice in the market; the number of competitors in the defined market; their relative market shares; the range of services provided by each operator; the ease of market entry; the ability of existing operators to offer additional services in the market; the extent to which the market is separable from the wider telecommunications market either

technically or geographically; and the degree of freedom for the operator to set wholesale prices.

131 Where, in the light of these considerations, OFTEL concludes that an operator has market power and is in a position to distort competition to the detriment of consumers, it will propose licence amendments accordingly to the operator in question.

132 Questions of symmetry also arise in relation to the provision of interconnection services and network information by other operators. These issues are dealt with in paragraphs 117 and 121 respectively.

133 Another issue which has been considered is when operators other than BT should also be required to publish their interconnection agreements, the other operators have argued that for them to have to do so would hinder their market development. OFTEL is not proposing to extend the publication requirement to other operators at the moment.

STAGE THREE: LONGER TERM ISSUES

134 The third stage of OFTEL's programme on interconnection will be to consider a number of longer term issues. Work has already started on some of these. OFTEL is proposing to draw up a more detailed programme for addressing them and put this to the workshop on 25 March. Although work will begin on the issues in 1994, it will almost certainly need to continue thereafter. If any issues can be resolved before 1995, they will be incorporated in the second stage programme. In any event, as solutions to outstanding issues are reached, they will be implemented from 1995 onwards. The issues are all important ones and OFTEL would not therefore propose to reach conclusions on them without full consultation. The key issues are set out in the following paragraphs.

Cost basis for interconnection charges

135 The other operators have put forward a suggestion that interconnection charges should be based on what they refer to as forward looking economic costs (FLEC) as soon as possible. FLEC is a form of long run incremental costs.

136 OFTEL recognises the theoretical attractions of a

long run incremental cost approach as a basis for setting interconnection charges. However, there are some important practical and policy issues associated with using incremental costs which will require some detailed and careful analysis. Particular issues which require consideration and on which views are invited are as follows:

- (a) how is the appropriate increment to be defined?
- (b) what does the concept of 'long run' mean and how should it be defined for the purposes of identifying costs?
- (c) how should common costs be recovered in an activity exhibiting substantial economies of scope, in a way which encourages efficient and sustainable competition and which is consistent with the non-discrimination proposals put forward in the statement?
- (d) if the costing approach is purely forward looking how would retrospective adjustment operate where cost forecast prove inaccurate?

137 Another very important factor is the possible impact on the price cap. Unless a major tension between retail prices and interconnection charges were to be introduced, a move to FLEC for interconnection charges would require BT to set retail prices on the same basis. This would imply that the price cap would have to be reset on the new basis of asset valuation. Reopening the price cap before the end of the current price control period would have some very serious implications and OFTEL is not clear that these would be offset by commensurate benefits. The Director General confirms that, on the information currently available to him, he would not intend to reopen the current price cap on BT's retail prices agreed for August 1993 to July 1997.

138 Some initial discussions on long run incremental costs have already been held with the operators and OFTEL is willing to take forward these discussions to see whether it could provide a more appropriate costing basis for interconnection charges. In particular, OFTEL intends to put in hand a pilot study to identify the detailed cost make-up of specific components and services and will be working with the operators to define the objectives of the study and set a timetable for it.

Charging structure for interconnection